EPA
United States
Environmental Protection
Agency

EPA Proposed Plan Tackles House Dust Contamination

St. Regis Paper Co. Superfund Site
Leech Lake Reservation
Cass County, Minnesota May 2005

Carpeting will be replaced, house dust cleaned up, and contaminated yard soil covered at about 40 homes near the St. Regis Paper site under a plan proposed by U.S. Environmental Protection Agency Region 5. The proposed cleanup actions are a way to quickly lower exposure for residents while officials wait for the results of an in-depth study called a "human health and ecological risk assessment," which should be finished later this year.

The pollution problems were caused by years of wood treatment at the paper company property, now owned by International Paper Co. The group of homes is south of the Burlington Northern railroad tracks, east of Route 371, north of the Chippewa National Forest and west of Pike Bay.

The cleanup action described above is one of five options considered by EPA to lower people's exposure to hazardous chemicals released by the wood-treating operations. Officials are most concerned about the contaminants arsenic, dioxin and a compound of chemicals called polycyclic aromatic hydrocarbons, usually abbreviated as PAHs. These pollutants were left in waste ponds, storage areas and railroad yards and were spread to nearby areas by wind-borne dust or rain and snow runoff. Picking the cleaning-and-covering option will protect people's health without the disturbance and cost of permanently relocating all the residents from the affected homes.

The proposed cleanup plan is not final. People have until Thursday, June 30, to comment on the proposal. EPA may change the proposal or pick another option based on public opinion and after consulting with the Leech Lake Band of Ojibwe and the State of Minnesota, its support agencies under Superfund law.

A public meeting has been scheduled for 6 p.m. Tuesday, June 7, at Cass Lake-Bena Elementary School to give people a chance to discuss the proposed cleanup plan *(see adjacent box for details).* Whatever cleanup plan is approved will be explained in an EPA document called a "record of decision."[1]

Share your opinion

EPA invites your comments on its recommended cleanup plan for house dust contamination in the group of homes near the St. Regis Paper site. Your input will help EPA pick the best way to deal with the problem. A public meeting and public hearing and availability sessions (informal drop in meetings) are scheduled for:

Tuesday, June 7
Public Meeting 6 –7 p.m.
Hearing about 7:15 p.m.
Cass Lake-Bena Elementary School
15 Fourth St. N.E.
Cass Lake

Wednesday, June 8
Availability Sessions
9:30–11:30 a.m. and 1:30–3:30 p.m.
EPA Field Office
6242 Upper Frontage Road
(LLBO police building)
Cass Lake

Oral and written comments will be accepted at the hearing. In addition, you may file written comments during the 30-day comment period running until June 30. Use the enclosed comment form or e-mail, fax or mail your comments to:

Tim Drexler
Remedial Project Manager
EPA Region 5 (SR-5J)
77 W. Jackson Blvd.
Chicago, IL 60604-3590
(312) 353-4367
Fax (312) 353-9281
Toll-free (800) 621-8431, Ext 34367
9 a.m. – 4:30 p.m., weekdays
drexler.timothy@epa.gov

[1] *Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (known as the Superfund law) requires that EPA provide an opportunity for a public meeting and hold a comment period. It also requires a newspaper ad announcing the proposed plan and a brief analysis. This proposed plan summarizes the more detailed information contained in official documents on file at several public repositories (see list of sites in front left-hand box).*

About the St. Regis Paper site

The St. Regis site occupies 125 acres on the Leech Lake Indian Reservation between Pike Bay and Cass Lake. Wood treatment activities began at the site in the 1950s while the land was leased from the Great Northern Railroad. Lumber was pressure treated with creosote and chemicals called pentachlorophenol and copper chromium arsenate. These substances generated the PAHs, dioxin and arsenic pollution. Wastewater from these processes was discharged into several disposal ponds on the site. Sludge from these ponds was hauled to a nearby dump and burned. Champion International bought St. Regis in 1985 and merged with International Paper in 2000.

Cleanup activities have been happening on the site since the 1980s. In 1984 the site was added to EPA's National Priorities List, which made it eligible for cleanup under the Superfund program.

Residents were hooked up to city water in 1986 because private wells were in danger of being contaminated. In 1995, EPA took over as lead agency on the site from the State of Minnesota.

Polluted soil poses exposure risk

The main way people in and around the St. Regis site are exposed to potentially harmful pollutants is by direct contact with contaminated soil. People may be exposed through skin contact with soil while engaging in gardening, sports, working around the house and digging. Skin contact with soil tracked into the home as house dust could also happen. Soil and dust sticking to skin can be ingested by hand-to-mouth contact, such as during eating. In addition, site-related chemicals could stick to dust particles and be spread by wind and traffic. These particles can then be inhaled by people. Dust is minimized in areas where the ground is covered by gravel, grass and pavement and during the winter months when the ground is frozen or covered with snow.

Soil sampling results show the highest concentrations of contaminants are on the former St. Regis property. Soil with a dioxin concentration of more than 1,000 parts per trillion, EPA's removal level in residential areas, was removed from city-owned site property during 2004. Additional soil removal from the site is planned this year. Soil sampling also revealed contamination in residential yards near the St. Regis property but at concentrations lower than those on the site. Homes near the St. Regis site had dioxin concentrations that ranged from 480 ppt to a low of 8 ppt, with the homes nearest the operation area showing the highest concentrations.

Last October, International Paper, with EPA oversight, collected house dust samples from 10 homes near the site. The house dust was analyzed for dioxins, PAHs and arsenic. Dioxin concentrations ranged from a high of 240 ppt to a low of 0.234 ppt. Arsenic concentrations ranged from a high of 62.8 parts per million to a low of 2.28 ppm. Values for benzo(a)pyrene, a type of PAH, ranged from a high of 485 parts per billion to a low of 105 ppb.

Risks to people

EPA studied the sample results to find out the potential health risks to people from being exposed to the contaminated dust. The main health risk from dioxin is the increased chance of getting cancer and non-cancer health problems such as skin, liver and kidney problems. The risks from arsenic include an increased chance of getting cancer or liver, kidney and respiratory problems. Based on the results, cancer risk and non-cancer hazards were calculated for each home sampled. Calculations were based on exposure to dioxin, benzo(a)pyrene and arsenic by eating, touching and breathing the contaminants over 70 years (six years as a child and 64 years as an adult). Calculations were also developed based on potential exposure of children because their risk is greater than the risk of exposure to adults.

EPA's analysis concluded that the amount of indoor dust contamination from the site exceeded what EPA considers to be acceptable for six of the 10 homes sampled. Because only 10 of about 40 homes were sampled, the risk to the remaining untested homes is unknown. EPA is proposing this interim cleanup for that reason. More detailed information about the risk calculations can be found in EPA's Revised House Dust Risk Calculations report for indoor dust available for viewing at the document repositories *(see page 1 for locations)*. A more indepth risk study is under way with results expected later in 2005.

Cleanup options

EPA considered five options for cleaning up contaminated soil and house dust in the group of homes near the St. Regis site. The goal of the cleanup is to quickly reduce health risks while officials wait for results from the larger health assessment.

EPA evaluated each option against nine criteria required by law, explained below. EPA recommends Option 4.

1. No further action
EPA always includes a no-action alternative as a comparison with the other options. Under this choice, no cleanup would be done. **Cost: $0**

2. Removing and replacing carpeting in all nearby homes
This choice involves only the removal and replacement of potentially contaminated carpeting from the group of about 40 homes near the St. Regis site. Residents would be temporarily relocated for the 1-2 days of carpeting removal and installation. This option would remove the single largest potential accumulation of dust in each home. This cleanup would take about two months to complete. **Cost: $136,920**

3. For homes exceeding EPA's acceptable risk levels: (1) removal and replacement of carpeting; (2) periodic housecleaning for contaminated dust removal; (3) soil and grass cover to yards. Monitoring homes below EPA's acceptable risk value.
This choice involves taking actions in the sampled homes that have contamination values above the acceptable level and sampling the remaining homes and taking action necessary to reduce contamination above the action level. The actions in homes above the risk levels include the removal and replacement of carpeting, periodic housecleaning for contaminated dust removal, and soil and grass cover to yards. Residents would also be temporarily relocated for the 1-2 days of carpeting removal and installation.

Housecleaning for dust removal in those homes above the contaminant action level would continue until EPA makes a final remedial decision about the site. Initial housecleaning for dust removal would involve removal and replacement of heating/air conditioning filters, cleaning all duct work and a thorough cleaning of all potential areas of dust collection such as upholstery, rugs and draperies. Maintenance housecleaning for dust removal would continue on a regular basis until the final remedial decision. Clean topsoil would be provided to cover the yards, and grass seed applied to reduce tracking contaminated soil into the home. Homes in the area which are below the action level would be regularly monitored until EPA makes a final remedial decision. This testing and cleanup would take about 6 months to complete. **Cost: about $453,100** (estimating 60% of homes with excessive contamination)

4. Removal and replacement of carpeting for the entire group of nearby homes, providing periodic housecleaning for dust removal, and providing soil and grass cover to all yards. *(This is EPA's recommended interim cleanup option.*)
This choice is similar to Number 3 but involves removing and replacing the carpeting in all 40 or so homes near the St. Regis site. Residents would be temporarily relocated for the 1-2 days of carpeting removal and installation. In addition, initial and periodic housecleaning for dust removal would be provided until EPA makes a final remedial decision about the site. At that time, the situation will be looked at again. Initial housecleaning would involve removal and replacement of heating/air conditioning filters, cleaning all duct work, and a thorough cleaning of all potential areas of dust collection such as upholstery, rugs and draperies. Maintenance housecleaning would continue until the final remedial decision is made. Finally, clean topsoil would be provided to cover the yards, and grass seed applied to reduce tracking contaminated soil into the home. Because of continual housecleaning for dust removal, monitoring would not be needed. This cleanup would take about three months to complete. **Cost: $211,680**

5. Permanent relocation of residents
This choice involves the permanent relocation of the 40 or so residential households near the St. Regis site. The contaminated house dust would be left in place in the homes without any cleanup. No monitoring would be conducted to check the overall condition of the homes over time. Given the limited available housing in Cass Lake, replacement

housing for this area would probably extend beyond Cass Lake. This option would take about one year to complete. **Cost: $2.4 million** (housing costs as of April 2004)

How do the options compare?

For the house dust contamination at the St. Regis site, EPA evaluated the five cleanup options against the nine criteria *(see chart).* As a result of this evaluation, EPA's recommendation is Option 4: removal and replacement of carpeting, periodic housecleaning for dust removal, and soil and grass cover for all nearby homes. Option 4 meets all of the criteria by:

- providing overall protection to the residents
- complying with regulations
- reducing the volume of contaminated dust in the homes being effective in the short-term
- being implementable
- having a reasonable cost
- being acceptable to tribal and state governments

Option 4 would quickly address the main contamination problem in the homes and reduce exposure to site contaminants through continual removal of the targeted contaminants. Option 4 would also greatly reduce the amount of contaminated dust within the homes and reassure residents that health risks are being reduced while environmental officials make a final remedial decision.

Options 1 and 2 are not desirable because they would leave contaminated material in place in the homes and would not reduce future contamination of the houses from surrounding contaminated soil. Option 3 is as protective as Option 4 by removing the risk to homes with confirmed contamination and monitoring the other nearby homes while waiting for the final remedial decision, but the cost is twice the price of Option 4 and the completion time over Option 4 would increase by about three months. Option 5 would protect residents from the pollution but is considered time-consuming and disruptive to the Cass Lake community as a short-term measure.

Overall, Option 4 appears to be the best choice for the house dust contamination at the site. This alternative is significantly less than the cost of Options 3 and 5 and more protective than Options 1 and 2.

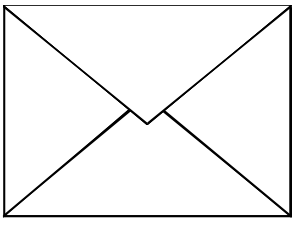
The Leech Lake Band of Ojibwe and the State of Minnesota, as partners with EPA, were given an opportunity to review this Proposed Plan. The Leech Lake Band and the State of Minnesota agreed with EPA's recommended option with comments.

	Evaluation Criteria for St. Regis Paper Interim Cleanup Options								
Cleanup Options	Overall protection of human health and the environment	Compliance with ARARs	Long-term effectiveness and permanence	Reduction of toxicity, mobility or Volume through treatment	Short-term effectiveness	Implementability	Cost	Tribal and State acceptance	Community acceptance
1			N/A				$0		will be evaluated after the public comment period
2			N/A	◙			$136,920		
3			N/A	◙			$453,100		
4			N/A	◙			$211,680		
5			N/A				$2.4 million		

Meets Criterion - Partially Meets Criterion - ◙ Does Not Meet Criterion -

Comment Sheet

EPA is interested in your comments on the St. Regis Paper Co. Superfund site. You may use the space below to write your comments, then fold and mail the form. You may also submit comments to Tim Drexler at drexler.timothy@epa.gov or by fax, (312) 353-9281. If you have any questions, contact Tim Drexler at (800) 621-8431, Ext. 34367, or direct at (312) 353-4367.



Name _____

Affiliation _____

Address _____

City _____

State _____ Zip _____

ST. REGIS PAPER CO. SUPERFUND SITE

COMMENT SHEET

Detach this page, fold on dashed lines, staple, stamp, and mail

Name _____
Address _____
City _____ State _____
Zip _____

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Tim Drexler
Remedial Project Manager
EPA Region 5 (SR-5J)
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Explanation of evaluation criteria

1. **Overall protection of human health and the environment** addresses whether an option protects both human health and the environment. This standard can be met by reducing or removing pollution or by reducing exposure to it.
2. **Compliance with applicable or relevant and appropriate requirements (ARARs)** ensures that options comply with federal, tribal, state and local laws.
3. **Long-term effectiveness and permanence** evaluates how well an option will work over the long-term, including how safely remaining contamination can be managed.
4. **Reduction of toxicity, mobility or volume through treatment** addresses how well the option uses treatment to reduce the toxicity, movement and amount of pollution.
5. **Short-term effectiveness** deals with how much risk there will be to the community and the environment from the work needed to complete the option.
6. **Implementability** evaluates how feasible the option is and whether materials and services are available in the area.
7. **Cost** includes not only buildings, equipment, materials and labor but also the cost of maintaining the option for the life of the cleanup.
8. **Tribal and state acceptance** examines whether the tribal and state governments accept the option.
9. **Community acceptance** judges how well nearby residents accept the option. EPA evaluates this standard after a public hearing and comment period.

Next steps

EPA will consider all public comments received during the comment period before choosing an interim cleanup plan for the site. A public meeting is scheduled for 6 p.m. Tuesday, June 7, followed by a public hearing at about 7:15 p.m. All comments received during the public comment period will be addressed in an EPA document called a "responsiveness summary" that will be included in the final decision document for the site. This interim record of decision for the site will be available for public review.

Contact information

In addition to contacting Tim Drexler, who is the EPA technical project manager (his information is on the front page), the EPA community involvement coordinator assigned to this site is Don de Blasio and he can be reached at:

EPA Region 5 (P-19J)
77 W. Jackson, Blvd.
Chicago, IL 60604-3590
(312) 886-4360
Toll-free (800) 621-8431, Ext. 64360
9 a.m. – 4:30 p.m., weekdays
Fax (312) 353-1155
deblasio.don@epa.gov

Read official documents

This is the proposed cleanup plan. If you want to read all the technical and scientific details you can look at the official site documents available at these locations:

Leech Lake Band of Ojibwe
Division of Resource Management
6530 Highway 2 N.W.
Cass Lake

Cass Lake City Clerk
332 Second St. N.W.
Cass Lake

Cass Lake Library
223 Cedar Ave.
Cass Lake

Leech Lake Tribal College
113 Balsam Ave.
Cass Lake

Bemidji State University Library
1501 Birchmont Drive N.E.
Bemidji

The proposal is available online at: http://www.epa.gov/region5/sites/stregis/index.htm

ST. REGIS PAPER CO. SUPERFUND SITE:
EPA Proposed Plan Tackles
House Dust Contamination

Meetings Scheduled for June 7 and 8
See Inside for Details

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Region 5
Office of Public Affairs (P-19J)
77 W. Jackson Blvd.
Chicago, IL 60604

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